FINDING OF NO SIGNIFICANT IMPACT

FOR
NORTH DITCH CROSSING CULVERT REPLACEMENT

AGENCY: Department of the Air Force

PROPOSED ACTION: North Ditch Crossing Culvert Replacement
Under this alternative, Grand Forks AFB would repair ditch crossings and replace culverts. The site location is the North Ditch located approximately 1 mile north of the intersection of Grand Forks AFB's Main Gate road and Highway B3 and east along 20th Avenue 1.2 miles to crossing 1 and an additional 0.5 miles to crossing 2. Contracted work would include: temporary removal and storage of all obstructions (e.g. fence posts and fencing material) within the area to be excavated or used for storage, excavation at crossings to reset and/or replace culvert sections, replacement of culverts, installation of culverts in such a manner that it continues the slope of the ditch, and reestablishment of crossings to correspond to conditions prior to excavation.

ALTERNATIVES CONSIDERED: Under the second alternative, Grand Forks AFB would repair soil erosion caused by previous flooding without replacement of culverts. This alternative would require future replacement of the culverts as they are reaching the end of their useful life. Under alternative 3, no action alternative, would leave the crossings and culverts as is. Grand Forks AFB would not meet the requirements of their easement with the property owners.

ENVIRONMENTAL CONSEQUENCES:
Air Quality - Construction activities would result in a short-term minimal increase of criteria air pollutants, as fuel burned by internal combustion engine power construction and earth-moving equipment. Earth moving activities would generate fugitive dust. Best management practices (BMPs) to reduce fugitive emissions would be implemented.

Noise - The short-term operation of heavy equipment in the construction area would generate additional noise only during construction and would cease after completion.

Wastes, Hazardous Materials, and Stored Fuels - The increase in hazardous and solid wastes from construction related activities would be minimal and temporary. Construction debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill.

Water Resources – If the excavated area fills with surface water, groundwater could be exposed to contaminants by infiltration. Surface water quality could degrade in the short-term due to possible erosion and possible contamination from spills. There would be minimal impacts to ground water, surface water, and water quality if BMPs were followed.

Biological Resources – BMPs would be implemented to ensure that impacts to biological resources are kept to a minimum. Vegetation would be reestablished at the end of the project. Construction would have insignificant impacts to wildlife and any wildlife disturbed would be able to find similar habitat in the local area.

Report Documentation Page

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13. SUPPLEMENTARY NOTES

14. ABSTRACT

This Final EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts of replacing culverts in the North Ditch outside Grand Forks AFB located in Grand Forks County, North Dakota. Resource areas analyzed in the EA include Air Quality; Noise, Wastes, Hazardous Materials, and Stored Fuels; Water Resources; Biological Resources; Socioeconomic Resources; Cultural Resources; Land Use; Transportation Systems Airspace/ Airfield Operations; Safety and Occupation Health Environmental Management; and Environmental Justice. In addition to the Proposed Action, the Repair Alternative and the No Action Alternative were analyzed in the EA. The EA also addresses the potential cumulative effects ofthe associated construction activities along with other concurrent actions at Grand Forks AFB and the surrounding area.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**77**	

Socioeconomic Resources – Construction would be completed under a contract. Secondary retail purchases would make an additional contribution to the local communities.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the event that any artifacts were discovered, the contractor would halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Office.

Land Use - The proposed construction would not have an impact on land use.

Transportation Systems - There would be a minimal short-term increase to traffic flows from the contractor traveling to the construction site.

Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.

Safety and Occupational Health - The proposed action would provide safe crossings for farmers to access their fields.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. No pesticides would be used as part of the project.

Environmental Justice - There are no minority or low-income populations in the area of the proposed action or alternatives, and there would be no disproportionately high or adverse impact on such populations.

No adverse environmental impact to any of the areas identified by the AF Form 813 is expected by the proposed action, North Ditch Crossing Culvert Replacement.

CONCLUSION:
Based on the Environmental Assessment performed for North Ditch Crossing Culvert Replacement, no significant environmental impact is anticipated from the proposed action. Based upon this finding, an Environmental Impact Statement is not required for this action. This document and the supporting AF Form 813 fulfill the requirements of the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations implementing NEPA, and Air Force Instruction 32-7061, which implements the CEQ regulations.

WAYNE A. KOOP, R.E.M., GM-13
Environmental Management Flight Chief

Date: 19 Aug 03

Final

Environmental Assessment

NORTH DITCH CROSSING CULVERT REPLACEMENT

West of Grand Forks AFB, North Dakota

9 Aug 03

Cover Sheet

Agency: US Air Force

Action: The action proposes replacement of culverts in the crossings of the North Ditch located to the east of Grand Forks Air Force Base (AFB), North Dakota.

Contacts:
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525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205

Designation: Final Environmental Assessment (EA)

Abstract: This Final EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts of replacing culverts in the North Ditch outside Grand Forks AFB, located in Grand Forks County, North Dakota. Resource areas analyzed in the EA include Air Quality; Noise, Wastes, Hazardous Materials, and Stored Fuels; Water Resources; Biological Resources; Socioeconomic Resources; Cultural Resources; Land Use; Transportation Systems; Airspace/Airfield Operations; Safety and Occupation Health; Environmental Management; and Environmental Justice.

In addition to the Proposed Action, the Repair Alternative and the No Action Alternative were analyzed in the EA. The EA also addresses the potential cumulative effects of the associated construction activities along with other concurrent actions at Grand Forks AFB and the surrounding area.

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List of Tables

ACRONYMS, ABBREVIATIONS, AND TERMS

ACM	Asbestos Containing Material
AF	Air Force
AFB	Air Force Base
AFI	Air Force Instruction
AICUZ	Air Installation Compatible Use Zone
AMC	Air Mobility Command
APZs	Accident Potential Zones
ARPA	Archeological Resource Protection Act
ARW	Air Fueling Wing
Ave	Avenue
BASH	Bird Aircraft Strike Hazard
Blvd	Boulevard
CAA	Clean Air Act
CWA	Clean Water Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dBa	Decibel
DNL	Day-Night Average A-Weighted Sound Level
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
F	Fahrenheit
FONSI	Finding of No Significant Impact
Ft	feet
HAP	Hazardous Air Pollutants
H_2S	Hydrogen Sulfide
IRP	Installation Restoration Program
LT	Long-Term

mph	Miles Per Hour
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
ND	North Dakota
NDAAQS	North Dakota National Ambient Air Quality Standards
NDDH	North Dakota Department of Health
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NO_2	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
O_3	Ozone
OSHA	Occupational Safety and Health Act
Pb	Lead
PM_{10}	Particulate Matter 10 Microns In Diameter
PM_{25}	Particulate Matter 25 Microns In Diameter
PSD	Prevention of Significant Deterioration
RACM	Regulated Asbestos Containing Materials
RCRA	Resource Conservation and Recovery Act
SAGE	Strategic Air Ground Equipment
SARA	Superfund Amendments and Reauthorization Act
SO_2	Sulfur Dioxide
St	Street
ST	Short-Term
TPY	Tons Per Year
TSCA	Toxic Substance Control Act
TSI	Thermal System Insulation
TSP	Total Suspended Particulates
USAF	United States Air Force
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

The United States Air Force proposes the replacement of culverts in the North Ditch located east of Grand Forks Air Force Base (AFB), North Dakota.

Purpose and Need: Ditch crossings and culverts in the North Ditch must be repaired/replaced. Grand Forks AFB has an easement for the ditch that requires the base to maintain the ditch and crossings. Repair is needed due to soil erosion caused by flooding a couple years ago. Culverts have reached the end of their useful life and must be replaced. Property owners are farmers that need to use the crossings to get their farm equipment onto their fields. Currently, it isn't safe for the farmers to use these crossings and they must find alternate ways to reach their property. This causes the farmers to go approximately 3 miles out of the way costing them time and fuel.

Proposed Action: Under this alternative, Grand Forks AFB would repair the ditch crossings and replace the culverts. The site is approximately 1 mile north of the intersection of Grand Forks AFB's Main Gate road and Highway B3 and east along the 20th Avenue 1.2 miles to crossing 1 and an additional 0.5 miles to crossing 2. Contracted work would include: temporary removal and storage of all obstructions (e.g. fence posts and fencing material) within the area to be excavated or used for storage, excavation at crossings to reset and/or replace culvert sections, replacement of culverts, installation of culverts in a manner that continues the slope of the ditch, and reestablishment of crossings to correspond to conditions prior to excavation.

Alternate Location Alternative: Grand Forks AFB would repair soil erosion caused by previous flooding without replacement of culverts. This alternative would require future replacement of the culverts as they are reaching the end of their useful life.

No Action Alternative: The no action alternative would leave the crossings and culverts as is. Grand Forks AFB would not meet the requirements of their easement with the property owners.

Impacts by Resource Area

Air Quality - Construction activities would result in a short-term minimal increase of criteria air pollutants, as fuel (gasoline and diesel) that is burned by internal combustion engine power construction and earth-moving equipment. Earth moving activities would generate fugitive dust (PM_{10}). Best management practices to reduce fugitive emissions would be implemented to the maximum extent possible to reduce the amount of these emissions.

Noise - The short-term operation of heavy equipment in the construction area would generate additional noise only during construction and would cease after completion.

Wastes, Hazardous Materials, and Stored Fuels - The increase in hazardous and solid wastes from construction related activities would be minimal and temporary. Construction debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill, which is located within 12 miles of the construction site.

Water Resources – If the excavated area fills with surface water, which is contaminated by materials used during construction, groundwater could be exposed to contaminants by infiltration. Surface water quality could degrade in the short-term, during actual construction, due to possible erosion contributing to turbidity of runoff and due to possible contamination from spills, leaks from construction equipment. Provided best management practices are followed, there would be minimal impacts to ground water, surface water, and water quality.

Biological Resources – Best management practices and control measures, including silt fences and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. There would be a temporary loss of vegetation during the construction. Construction would have insignificant impacts to wildlife. Due to the abundance and mobility of these species and the profusion of natural habitats in the general vicinity, any wildlife disturbed would be able to find similar habitat in the local area.

Socioeconomic Resources - Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, minimal beneficial impact to local retailers during the construction phase of the project.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

Land Use - The proposed construction would not have an impact on land use.

Transportation Systems - There would be a minimal increase to traffic flows from the contractor traveling to the construction site.

Airspace/Airfield Operations - The proposed action would have no impact on aircraft safety or airspace compatibility.

Safety and Occupational Health – The proposed action would provide a safe crossing for farmers to access their property.

Environmental Management – The proposed action would have no impact on an IRP Sites. Best management practices would be implemented to prevent erosion. The hazard of wind erosion is moderate and considerable erosion could occur on stockpiled soils. No pesticides would be used as part of this project.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

This Environmental Assessment (EA) examines the potential for impacts to the environment resulting from replacement of culverts in the North Ditch east of Grand Forks Air Force Base (AFB). As required by the *National Environmental Policy Act* (NEPA) of 1969, federal agencies must consider environmental consequences in their decision making process. The EA provides analysis of the potential environmental impacts from both the proposed action and its alternatives.

1.1 INTRODUCTION

Located in northeastern North Dakota (ND), Grand Forks AFB is the first core refueling wing in Air Mobility Command (AMC) and home to 48 KC-135R Stratotanker aircraft. The host organization at Grand Forks AFB is the 319th Air Refueling Wing (ARW). Its mission is to guarantee global reach, by extending range in the air, supplying people and cargo where and when they are needed and provides air refueling and airlift capability support to Air Force (AF) operations anywhere in the world, at any time. Organizational structure of the 319th ARW consists primarily of an operations group, maintenance group, mission support group, and medical group.

The location of the proposed action (and the alternative actions) would be at Grand Forks AFB, ND. Grand Forks AFB covers approximately 5,420 acres of government-owned land and is located in northeastern ND, about 14 miles west of Grand Forks, along United States (US) Highway 2. Grand Forks (population 49,321) is the third largest city in ND. Appendix A includes a Location Map. The city, and surrounding area, is a regional center for agriculture, education, and government. It is located approximately 160 miles south of Winnipeg, Manitoba, and 315 miles northwest of Minneapolis, Minnesota. The total base population, as of May 2003, is approximately 6, 934. Of that, 2,849 are military, 3,747 are military dependents, and 338 civilians working on base (Grand Forks AFB, 2003).

The site location is the North Ditch located approximately 1 mile north of the intersection of Grand Forks Air Force Base's Main Gate road and Highway B3 and east along the gravel road 1.2 miles (20^{th} Avenue) to crossing 1 and an additional 0.5 miles to crossing 2. The ditch is located on the south side of the road.

1.2 NEED FOR THE ACTION

The ditch crossings need to be repaired due to soil erosion caused by flooding a couple years ago. Additionally, culverts have reached the end of their useful life and need to be replaced. Property owners are farmers that need to use the crossings to get their farm equipment onto their fields. Currently, it isn't safe for the farmers to use these crossings and they must find alternate ways to reach their property. This causes the farmers to go approximately 3 miles out of the way costing them time and fuel. Grand Forks AFB has an easement for this ditch and is required to perform maintenance on the ditch and its crossings.

1.3 OBJECTIVES FOR THE ACTION

The objective of the proposed action is to meet the requirements set forth in Grand Forks AFBs easement for the ditch and to provide safe crossings for farmers to reach their fields.

1.4 SCOPE OF EA

This EA identifies, describes, and evaluates the potential environmental impacts associated with repair of the ditch crossings and replacement of the culverts. This analysis covers only those items listed above. It does not include any previous construction of facilities, parking lots, associated water drainage structures, or other non-related construction activities.

The following must be considered under the NEPA, Section 102(E).

- Air Quality
- Noise
- Wastes, Hazardous Materials, and Stored Fuels
- Water Resources
- Biological Resources
- Socioeconomic Resources
- Cultural Resources
- Land Use
- Transportation Systems
- Airspace/Airfield Operations
- Safety and Occupation Health
- Environmental Management
- Environmental Justice

1.5 DECISION(S) THAT MUST BE MADE

This EA evaluates the environmental consequences from the repair of the ditch crossings and replacement of the culverts in the North Ditch. NEPA requires that environmental impacts be considered prior to final decision on a proposed project. The Environmental Management Flight Chief will determine if a Finding of Significant Impact can be signed or if an Environmental Impact Statement (EIS) must be prepared. Preparation of an environmental analysis must be accomplished prior to a final decision regarding the proposed project and must be available to inform decision makers of potential environmental impacts of selecting the proposed action or either of the alternatives.

1.6 APPLICABLE REGULATORY REQUIREMENTS AND REQUIRED COORDINATION

These regulations require federal agencies to analyze potential environmental impacts of proposed actions and alternatives and to use these analyses in making decisions on a proposed action. All cumulative effects and irretrievable commitment of resources must also be

assessed during this process. The Council on Environmental Quality (CEQ) regulations declares that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI).
- Aid in an agency's compliance with NEPA when an EIS is not necessary, and facilitate preparation of an EIS when necessary.

Air Force Instruction (AFI) 32-7061 as promulgated in 32 Code of Federal Regulations (CFR) 989, specifies the procedural requirements for the implementation of NEPA and the preparation of an EA. Other environmental regulatory requirements relevant to the Proposed Action and alternatives are also in this EA. Regulatory requirements including, but not restricted to the following programs will be assessed:

- AF Environmental Impact Analysis Process (EIAP) (32 CFR 989)
- AFI 32-7020, Environmental Restoration Program
- AFI 32-7040, Air Quality Compliance
- AFI 32-7041, Water Quality Compliance
- AFI 32-7042, Solid and Hazardous Waste Compliance
- AFI 32-7063, Air Installation Compatible Use Zone (AICUZ) Program
- AFI 32-7064, Integrated Natural Resource Management
- Archaeological Resources Protection Act (ARPA) [16 U.S.C. Sec 470a-11, *et seq.*, as amended]
- Clean Air Act (CAA) [42 U.S.C. Sec 7401, *et seq.*, as amended]
- Clean Water Act (CWA) [33 U.S.C. Sec 400, *et seq.*]
- CWA [33 U.S.C. Sec 1251, *et seq.*, as amended]
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) [42 U.S.C. Sec. 9601, et seq.]
- Defense Environmental Restoration Program [10 U.S.C. Sec. 2701, et seq.]
- Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 [42 U.S.C. Sec. 11001, et seq.]
- Endangered Species Act (ESA) [16 U.S.C. Sec 1531-1543, *et seq.*]
- Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality as Amended by EO 11991
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12372, Intergovernmental Review of Federal Programs
- EO 12898, Environmental Justice
- EO 12989 Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
- Hazardous Materials Transportation Act of 1975 [49 U.S.C. Sec 1761, et seq.]

- NEPA of 1969 [42 U.S.C. Sec 4321, *et seq.*]
- National Historic Preservation Act (NHPA) of 1966 [16 U.S.C. Sec 470, *et seq.*, as amended]
- The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 [Public Law 101-601, 25 U.S.C. Sec. 3001-3013, *et seq.*]
- Noise Control Act of 1972 [42 U.S.C. Sec. 4901, *et seq.*, Public Law 92-574]
- ND Air Pollution Control Act (Title 23) and Regulations
- ND Air Quality Standards (Title 33)
- ND Hazardous Air Pollutants Emission Standards (Title 33)
- Occupational Safety and Health Act (OSHA) of 1970 [29 U.S.C. Sec. 651, et seq.]
- Resource Conservation and Recovery Act (RCRA) of 1976 [42 U.S.C. Sec. 6901, et seq.]
- Toxic Substances Control Act (TSCA) of 1976 [15 U.S.C. Sec. 2601, et seq.]

Grand Forks AFB has a National Pollutant Discharge Elimination System (NPDES) permit to cover base-wide industrial activities. Construction of the proposed action or Alternative 2 would disturb less than 1 acre.

Scoping for this EA included discussion of relevant issues with members of the environmental management and bioenvironmental flights. Scoping letters requesting comments on possible issues of concern were sent to agencies with pertinent resource responsibilities. In accordance with AFI 32-7061, a copy is submitted to the ND Division of Community Services.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

Based on the descriptions of the relevant environmental resources presented in Section 3 and the predictions and analyses presented in Section 4, this section presents a comparative summary matrix of the alternatives (the heart of the analysis) providing the decision maker and the public with a clear basis for choice among the alternatives.

This section has five parts:

- Selection Criteria for Alternatives
- Alternatives Considered but Eliminated from Detailed Study
- Detailed Descriptions of the Three Alternatives Considered
- Comparison of Environmental Effects of the Proposed Action and Alternatives
- Identification of the Preferred Alternative

2.2 SELECTION CRITERIA FOR ALTERNATIVES

Selection criteria used to evaluate the Proposed and Alternative Actions include the following:

- *Criteria 1: Meeting the requirements for ditch maintenance set forth in Grand Forks AFBs easement for the ditch.*
- *Criteria 2: Providing a safe crossing for farmers to reach their fields.*

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

No alternatives were eliminated from detailed study.

2.4 DESCRIPTION OF PROPOSED ALTERNATIVES

This section describes the activities that would occur under three alternatives: the proposed action and the two action alternatives. These three alternatives provide the decision maker with a reasonable range of alternatives from which to choose.

2.4.1 Alternative 1 (Proposed Action): North Ditch Crossings Culvert Replacement

Under this alternative, Grand Forks AFB would repair the ditch crossings. The site location is the North Ditch located approximately 1 mile north of the intersection of Grand Forks Air Force Base's Main Gate road and Highway B3 and east along the gravel road 1.2 miles (20th Avenue) to crossing 1 and an additional 0.5 miles to crossing 2. Work would be completed under a contract and would include: temporary removal and storage of all obstructions (e.g. fence posts and fencing material) within the area to be excavated or used for storage, excavation at crossings to reset and/or replace culvert sections, replacement of culverts, installation of culverts in such a manner that it continues the slope of the ditch, reestablishment of crossings to correspond to conditions prior to excavation, and replacement of all previously removed obstructions to their

prior locations. Each crossing currently consists of five reinforced concrete pipes with aprons on the inlet and outlet. The contractor completing the work would have to submit the following and have it approved by the Environmental Management Office: Storm Water Protection Plan, Waste Disposal Plan, Spill Control Plan, and Erosion and Sediment Control Plan.

2.4.2 Alternative 2: Repair Crossings

Alternative 2 would repair soil erosion caused by previous flooding without replacement of culverts. This alternative would require future replacement of the culverts as they are reaching the end of their useful life. It would be unsafe for farmers to use these crossings as culverts could fail.

2.4.3 Alternative 3 (No Action Alternative): Status Quo

Alternative 3, no action alternative, would leave the crossings and culverts as is. Grand Forks AFB would not meet the requirements of their easement with the property owners.

2.5 DESCRIPTION OF PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS RELEVANT TO CUMULATIVE IMPACTS

Impacts from the Proposed Action would be concurrent with other actions occurring at Grand Forks AFB. Grand Forks AFB is not aware of any other projects in the vicinity of the North Ditch. These projects would be addressed under separate NEPA documents by the responsible agencies.

2.6 SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES

Potential impacts from implementing the Proposed Action, Alternative 2, and the No Action Alternative are discussed in detail in Chapter 4.

Table 2.6.1: Summary of Environmental Impacts

	Proposed Action	Alternative 1	No Action Alternative
Legend: ST = short-term; LT = long-term			
Air Quality	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Noise	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Wastes, Hazardous Materials, and Stored Fuels	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Water Resources			
Groundwater	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Surface Water	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Wastewater	None	None	None
Water Quality	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Wetlands	None	None	None
Biological Resources			
Vegetation	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Wildlife	Minot Adverse ST Impact	Minot Adverse ST Impact	None
Threatened and Endangered	None	None	None

Table 2.6.1: Summary of Environmental Impacts			
	Proposed Action	**Alternative 1**	**No Action Alternative**
Species			
Socioeconomic Resources	Minor Beneficial ST Impact	Minor Beneficial ST Impact	None
Cultural Resources	None	None	None
Land Use	None	None	None
Transportation Systems	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Airspace/Airfield Operations			
Aircraft Safety	None	None	None
Airspace Compatibility	None	None	None
Safety and Occupational Health	Minor Beneficial LT Impact	Minor Beneficial LT Impact	None
Environmental Management			
Installation Restoration Program	None	None	None
Geological Resources	Minor Adverse ST Impact	Minor Adverse ST Impact	None
Pesticide Management	None	None	None
Environmental Justice	None	None	None

2.7 IDENTIFICATION OF PREFERRED ALTERNATIVE

The preferred action is Alternative 1 (Proposed Action): North Ditch Crossing Culvert Replacement.

3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This section succinctly describes the operational concerns and the environmental resources relevant to the decision that must be made concerning this proposed action. Environmental concerns and issues relevant to the decision to be made and the attributes of the potentially affected environment are studied in greater detail in this section.

This descriptive section, combined with the definitions of the three alternatives in Section 2, and their predicted effects in Section 4, establish the scientific baseline against which the decision-maker and the public can compare and evaluate the activities and effects of all three alternatives.

3.2 AIR QUALITY

Grand Forks AFB has a humid continental climate that is characterized by frequent and drastic weather changes. The summers are short and humid with frequent thunderstorms. Winters are long and severe with almost continuous snow cover. The spring and fall seasons are generally short transition periods. The average annual temperature is 40°Farenheit (F) and the monthly mean temperature varies from 6°F in January to 70°F in July. Mean annual precipitation is 19.5 inches. Rainfall is generally well distributed throughout the year, with summer being the wettest season and winter the driest. An average of 34 thunderstorm days per year is recorded, with some of these storms being severe and accompanied by hail and tornadoes. Mean annual snowfall recorded is 40 inches with the mean monthly snowfall ranging from 1.6 inches in October to 8.0 inches in March. Relative humidity averages 58 percent annually, with highest humidities being recorded in the early morning. The average humidity at dawn is 76 percent. Mean cloud cover is 48 percent in the summer and 56 percent in the winter (USAF, 2003).

Table 3.2-1: Climate Data for Grand Forks AFB, ND

	Mean Temperature (°F) Daily			Precipitation (Inches) Monthly		
Month	Maximum	Minimum	Monthly	Mean	Maximum	Minimum
January	15	-1	6	0.7	2.4	0.1
February	21	5	13	0.5	3.2	0.0
March	34	18	26	1.0	2.9	0.0
April	53	32	41	1.5	4.0	0.0
May	69	47	56	2.5	7.8	0.5
June	77	56	66	3.0	8.1	0.8
July	81	61	70	2.7	8.1	0.5
August	80	59	67	2.6	5.5	0.1
September	70	49	57	2.3	6.2	0.3
October	56	37	44	1.4	5.7	0.1
November	34	20	26	0.7	3.3	0.0
December	20	6	12	0.6	1.4	0.0

Source: AFCCC/DOO, October 1998

Wind speed averages 10 miles per hour (mph). A maximum wind speed of 74 mph has been recorded. Wind direction is generally from the northwest during the late fall, winter, and spring, and from the southeast during the summer.

Grand Forks County is included in the ND Air Quality Control Region. This region is in attainment status for all criteria pollutants. In 1997, the ND Department of Health (NDDH) conducted an Air Quality Monitoring Survey that indicated that the quality of ambient air in ND is generally good as it is located in an attainment area (NDDH, 1998). Grand Forks AFB has the following air permits: T5-F78004 (permit to operate) issued by NDDH and a CAA Title V air emissions permit.

The United States Environmental Protection Agency (USEPA) established the National Ambient Air Quality Standards (NAAQS), which define the maximum allowable concentrations of pollutants that may be reached, but not exceeded within a given time period. The NAAQS regulates the following criteria pollutants: Ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and particulate matter. The ND Ambient Air Quality Standards (NDAAQS) were set by the State of ND. These standards are more stringent and emissions for operations in ND must comply with the Federal or State standard that is the most restrictive. There is also a standard for hydrogen sulfide (H_2S) in ND.

Prevention of significant deterioration (PSD) regulations establish SO_2 and total suspended particles (TSP) that can be emitted above a premeasured amount in each of three class areas. Grand Forks AFB is located in a PSD Class II area where moderate, well-controlled industrial growth could be permitted. Class I areas are pristine areas and include national parks and wilderness areas. Significant increases in emissions from stationary sources (100 tons per year (tpy) of CO, 40 tpy of NO_X, VOCs, or SO_X, or 15 tpy of particulate matter 10 microns in diameter [PM_{10}]) and the addition of major sources requires compliance with PSD regulations.

Air pollutants include O_3, CO, NO_2, SO_2, Pb, and particulate matter. Ground disturbing activities create PM_{10} and particulate matter 25 microns in diameter ($PM_{2.5}$). Combustion creates CO, SO_2, PM_{10}, and $PM_{2.5}$ particulate matter and the precursors (volatile organic compounds [VOC] and NO_2) to O_3. Only a small amount of Hazardous Air Pollutants (HAP) are generated from internal combustion processes or earth-moving activities. The Grand Forks AFB Final Emissions Survey Report (USAF, 1996) reported that Grand Forks AFB only generated small levels HAPs, 10.3 tpy of combined HAPs and 2.2 tpy maximum of a single HAP (methyl ethyl ketone). Methyl Ethyl Ketone is associated with aircraft and vehicle maintenance and repair. Secondary sources include fuel storage and dispensing (USAF, 2001a).

Table 3.2-2
National Ambient Air Quality Standards (NAAQS) and ND Ambient Air Quality Standards (NDAAQS)

Pollutant	Averaging Time	NAAQS $\mu g/m^3$ (ppm)[a]		NDAAQS $\mu g/m^3$ (ppm)[a]
		Primary[b]	Secondary[c]	
O_3	1 hr	235 (0.12)	Same	Same
	8 hr[e]	157 (0.08)	Same	
CO	1 hr	40,000 (35)	None	40 (35)
	8 hr	10,000 (9)	None	10 (9)
NO_2	AAM[d]	100 (0.053)	Same	Same
SO_2	1 hr	None	None	715 (0.273)
	3 hr	None	1,300 (0.5)	None
	24 hr	365 (0.14)	None	260 (0.099)
	AAM	80 (0.03)	None	60 (0.023)
PM_{10}	AAM	50	Same	Same
	24 hr	150	Same	Same
$PM_{2.5}$[e]	AAM	65	Same	None
	24 hr	15	Same	None
Pb	¼ year	1.5	Same	Same
H_2S	1 hr	None	None	280 (0.20)
	24 hr	None	None	140 (0.10)
	3 mth	None	None	28 (0.02)
	AAM	None	None	14 (10)

[a] $\mu g/m^3$ – micrograms per cubic meter; ppm – parts per million
[b] National Primary Standards establish the level of air quality necessary to protect the public health from any known or anticipated adverse effects of pollutant, allowing a margin of safety to protect sensitive members of the population.
[c] National Secondary Standards establish the level of air quality necessary to protect the public welfare by preventing injury to agricultural crops and livestock, deterioration of materials and property, and adverse impacts on the environment.
[d] AAM – Annual Arithmetic Mean.
[e] The Ozone 8-hour standard and the PM 2.5 standards are included for information only. A 1999 federal court ruling blocked implementation of these standards, which EPA proposed in 1997. EPA has asked the US Supreme Court to reconsider that decision (USEPA, 2000).
PM_{10} is particulate matter equal to or less than 10 microns in diameter.
$PM_{2.5}$ is particulate matter equal to or less than 2.5 microns in diameter.
Source: 40 CFR 50, ND Air Pollution Control Regulations – NDAC 33-15

3.3 NOISE

Noise generated on Grand Forks AFB consists mostly of aircraft, vehicular traffic and construction activity. Most noise is generated from aircraft during takeoff and landing and not from ground traffic. Noise levels are dependent upon type of aircraft, type of operations, and distance from the observer to the aircraft. Duration of the noise is dependent upon proximity of the aircraft, speed, and orientation with respect to the observer.

Table 3.3-1
Typical Decibel Levels Encountered in the Environment and Industry

Sound Level (dBa)	Maximum Exposure Limits	Source of Noise	Subjective Impression
10			Threshold of hearing
20		Still recording studio; Rustling leaves	
30		Quiet bedroom	
35		Soft whisper at 5 feet; Typical library	
40		Quiet urban setting (nighttime); Normal level in home	Threshold of quiet
45		Large transformer at 200 ft	
50		Private business office; Light traffic at 100 ft; Quiet urban setting (daytime)	
55		Window air conditioner; Men's clothing department in store	Desirable limit for outdoor residential area use (EPA)
60		Conversation speech; Data processing center	
65		Busy restaurant; Automobile at 100 ft	Acceptable level for residential land use
70		Vacuum cleaner in home; Freight train at 100 ft	Threshold of moderately loud
75		Freeway at 10 ft	
80		Ringing alarm clock at 2 ft; Kitchen garbage disposal; Loud orchestral music in large room	Most residents annoyed
85		Printing press; Boiler room; Heavy truck at 50 ft	Threshold of hearing damage for prolonged exposure
90	8 hr	Heavy city traffic	
95	4 hr	Freight train at 50 ft; Home lawn mower	
100	2 hr	Pile driver at 50 ft; Heavy diesel equipment at 25 ft	Threshold of very loud
105	1 hr	Banging on steel plate; Air Hammer	
110	0.5 hr	Rock music concert; Turbine condenser	
115	0.25 hr	Jet plane overhead at 500 ft	
120	< 0.25 hr	Jet plane taking off at 200 ft	Threshold of pain
135	< 0.25 hr	Civil defense siren at 100 ft	Threshold of extremely loud

Source: US Army, 1978

Table 3.3-2
Approximate Sound Levels (dBA) of Construction Equipment

Equipment Type	Sound Levels (dBA) at Various Distances (ft)					
	50	100	200	400	800	1,600
Front-end Loader	84	78	72	66	60	54
Dump Truck	83	77	71	65	59	53
Truck	83	77	71	65	59	53
Tractor	84	78	72	66	58	52

Source: Thurman, 1976; US Army, 1978

Because military installations attract development in proximity to their airfields, the potential exists for urban encroachment and incompatible development. The AF utilizes a program known

as AICUZ to help alleviate noise and accident potential problems due to unsuitable community development. AICUZ recommendations give surrounding communities alternatives to help prevent urban encroachment. Noise contours are developed from the Day-Night Average A-Weighted Sound Level (DNL) data which defines the noise created by flight operations and ground-based activities. The AICUZ also defines Accident Potential Zones (APZs), which are rectangular corridors extending from the ends of the runways. Recommended land use activities and densities in the APZs for residential, commercial, and industrial uses are provided in the base's AICUZ study. Grand Forks AFB takes measures to minimize noise levels by evaluating aircraft operations. Blast deflectors are utilized in designated areas to deflect blast and minimize exposure to noise.

3.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

Hazardous wastes, as listed under the RCRA, are defined as any solid, liquid, contained gaseous, or combination of wastes that pose a substantive or potential hazard to human health or the environment. On-base hazardous waste generation involves three types of on-base sites: an accumulation point (90-day), satellite accumulation points, and spill cleanup equipment and materials storage (USAF, 2001c). Discharge and emergency response equipment is maintained in accessible areas throughout Grand Forks AFB. The Fire Department maintains adequate fire response and discharge control and containment equipment. Equipment stores are maintained in buildings 523 and 530. Petroleum contaminated soils generated from excavations throughout the base can be treated at the land treatment facility located on base. These solid wastes are tilled or turned several times a year to remediate the soils to acceptable levels.

Hardfill, construction debris, and inert waste generated by Grand Forks AFB are disposed of at a permitted off-base landfill. All on-base household garbage and solid waste is collected by a contractor and transported to the Grand Forks County Landfill, which opened in 1982.

Recyclable materials from industrial facilities are collected in the recycling facility, off the southeast corner of building 408. Paper, glass, plastics, cardboard, and wood are collected in separate storage bins. Curbside containers are used in housing for recyclable materials. A contractor collects these materials and transports them off base.

The Environmental Management Flight manages the hazardous material through a contract with Pacific Environmental Services. Typical hazardous materials include reactive materials such as explosives, ignitiables, toxics, and corrosives. Improper storage can impact human health and the safety of the environment.

Since Grand Forks AFB is a military installation with a flying mission, there are several aboveground and underground fuel storage tanks. None of the alternatives would impact fuel storage tanks.

3.5 WATER RESOURCES

3.5.1 Groundwater

Chemical quality of groundwater is dependent upon the amount and type of dissolved gases, minerals, and organic material leached by water from surrounding rocks as it flows from recharge to discharge areas. The water table depth varies throughout the base, from a typical 1-3 feet to 10 feet or more below the surface.

Even though the Dakota Aquifer has produced more water than any other aquifer in Grand Forks County, the water is very saline and generally unsatisfactory for domestic and most industrial uses. Its primary use is for livestock watering. It is a sodium chloride type water with total dissolved solids concentrations of about 4,400 parts per million. The water generally contains excessive chloride, iron, sulfate, total dissolved solids, and fluoride. The water from the Dakota is highly toxic to most domestic plants and small grain crops, and in places, the water is too highly mineralized for use as livestock water (Hansen and Kume, 1970).

Water from wells tapping the Emerado Aquifer near Grand Forks AFB is generally of poor quality due to upward leakage of poor quality water from underlying bedrock aquifers. It is sodium sulfate type water with excessive hardness, chloride, sulfate, and total dissolved solids. Water from the Lake Agassiz beach aquifers is usually of good chemical quality in Grand Forks County. The water is a calcium bicarbonate type that is relatively soft. The total dissolved content ranges from 308 to 1,490 PPM. Most water from beach aquifers is satisfactory for industrial, livestock, and agricultural uses (Hansen and Kume, 1970).

Grand Forks AFB draws 85 to 90 percent of its water for industrial, commercial and housing functions from the City of Grand Forks and 10 to 15 percent from Agassiz Water.

3.5.2 Surface Water

Natural surface water features located on or near Grand Forks AFB are the Turtle River and Kelly's Slough National Wildlife Refuge (NWR). Drainage from surface water channels ultimately flows into the Red River.

The Turtle River, crossing the base boundary at the northwest corner, is very sinuous and generally flows in a northeasterly direction. It receives surface water runoff from the western portion of Grand Forks AFB and eventually empties into the Red River of the North that flows north to Lake Winnipeg, Canada. The Red River drainage basin is part of the Hudson Bay drainage system. At Manvel, ND, approximately 10 miles northeast of Grand Forks AFB, the mean discharge of the Turtle River is 50.3 ft^3/s. Peak flows result from spring runoff in April and minimum flows (or no flow in some years) occur in January and February.

NDDH has designated the Turtle River to be a Class II stream, it may be intermittent, but, when flowing, the quality of the water, after treatment, meets the chemical, physical, and bacteriological requirements of the NDDH for municipal use. The designation also states that it

is of sufficient quality to permit use for irrigation, for propagation of life for resident fish species, and for boating, swimming, and other water recreation.

Kelly's Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kelly's Slough NWR receives surface water runoff from the east half of the base and effluent from the base sewage lagoons located east of the base. Surface water flow of the slough is northeasterly into the Turtle River Drainage from surface water channels ultimately flowing into the Red River. Floodplains are limited to an area 250 feet on either side of Turtle River (about 46 acres on base). Appendix C contains a map depicting floodplains. Any development in or modifications to floodplains must be coordinated with the Corps of Engineers and the Federal Emergency Management Agency.

Surface water runoff leaves Grand Forks AFB at four primary locations related to identifiable drainage areas on base. The four sites are identified as northeast, northwest, west, and southeast related to the base proper. These outfalls were approved by the NDDH as stated in the Grand Forks AFB ND Pollutant Discharge Elimination System (NDPDES) Permit NDR02-0314 Stormwater Discharges from Industrial Activity. Of the four outfall locations, the west and northwest sites flow into the Turtle River, the northeast site flows to the north ditch and the southeast outfall flows into the south ditch. The latter two flow to Kelly's Slough and then the Turtle River. All drainage from these surface water channels ultimately flows into the Red River. The Bioenvironmental Engineering Office samples the four outfall locations during months when de-icing activities occur on base.

3.5.3 Wastewater

Grand Forks AFB discharges its domestic and industrial wastewater to four stabilization lagoons located east of the main base. The four separate treatment cells consist of one primary treatment cell, two secondary treatment cells, and one tertiary treatment cell. Wastewater effluent is discharged under ND Permit ND0020621 into Kelly's Slough. Wastewater discharge occurs for about one week, sometime between mid-April though October. Industrial wastewater at the base comprises less than ten percent of the total flow to the treatment lagoons.

3.5.4 Water Quality

According to the National Water Quality Inventory Report (USEPA, 1995), ND reports the majority of rivers and streams have good water quality. Natural conditions, such as low flows, can contribute to violations of water quality standards. During low flow periods, the rivers are generally too saline for domestic use. Grand Forks AFB receives water from Grand Forks and Lake Agassiz Water. The city recovers its water from the Red River and the Red Lake River, while the water association provides water from aquifers. The water association recovers water from well systems within glacial drift aquifers (USAF, 1999). The 319th Civil Engineering Squadron tests the water received on base daily for fluorine and chlorine. The 319th Bioenvironmental Flight collects monthly bacteriological samples to be analyzed at the ND State Laboratory.

3.5.5 Wetlands

About 246,900 acres in the county are drained wetland Type I (wet meadow) to Type V (open freshwater). Approximately 59,500 acres of wetland Type I to V are used for wetland habitat. Wetland Types IV and V include areas of inland saline marshes and open saline water. Kelly's Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kelly's Slough NWR is the most important regional wetland area in the Grand Forks vicinity. EO 11990 requires zero loss of wetlands. Grand Forks AFB has 49 wetlands, covering 23.9 acres of wetlands (see Appendix C), including 33 jurisdictional wetlands covering 12.2 acres. Wetlands on Grand Forks AFB occur frequently in drainage ways, low-lying depressions, and potholes. Wetlands are highly concentrated in drainage ways leading from the wastewater treatment lagoons to Kelly's Slough NWR. The majority of wetland areas occur in the northern and central portions of base, near the runway, while the remaining areas are near the eastern boundary and southeastern corner of base. Development in or near these areas must include coordination with the ND State Water Commission and the US Army Corps of Engineers.

3.6 BIOLOGICAL RESOURCES

3.6.1 Vegetation

Plants include a large variety of naturally occurring native plants. Because of the agrarian nature of Grand Forks County, cropland is the predominant element for wildlife habitat. Pastures, meadows, and other non-cultivated areas are overgrown with grasses, legumes, and wild herbaceous plants. Included in the grasses and legumes vegetation species are tall wheat grass, bromegrass, sweet clover, and alfalfa. Herbaceous plants include little bluestem, goldenrod, green needle grass, western wheat grass, and bluegrama. Shrubs such as juneberry, dogwood, hawthorn, and snowberry also are found in the area. In wetland areas, predominant species include smartweed, wild millet, cord grass, bulrushes, sedges, and reeds. These habitats for upland wildlife and wetland wildlife attract a variety of species to the area and support many aquatic species.

Various researchers, most associated with the University of ND, have studied current native floras in the vicinity of the base. Prior to 1993 field investigations, ten natural communities occurring in Grand Forks County were identified in the ND Natural Heritage Inventory (1994). Of these, only one community, Lowland Woodland, is represented within the base boundaries. Dominant trees in this community are elm, cottonwood, and green ash. Dutch elm disease has killed many of the elms. European buckthorn (a highly invasive exotic species), chokecherry, and wood rose (*Rosa woodsii)* are common in the understory in this area. Wood nettle (*Laportea canadensis*), stinging nettle (*Urtica dioica*), beggars' ticks (*Bidens frondosa*), and waterleaf (*Hydrophyllum viginianum*) are typical forbes.

One hundred and forty two total taxa, representing less than a third of the known Grand Forks County plant taxa, were identified in the ND Natural Heritage Inventory. No rare plants species are known to exist on Grand Forks AFB.

3.6.2 Wildlife

Ground Forks County is primarily cropland although there are wildlife areas located within the county. Kelly's Slough NWR is located a couple miles northeast of Grand Forks AFB. In addition to being a wetland, it is a stopover point for migratory birds. The Prairie Chicken Wildlife Management Area is located north of Mekinock and contains 1,160 acres of habitat for deer, sharp-tailed grouse, and game birds. Wildlife can also be found at the Turtle River State Park, The Bremer Nature Trail, and the Myra Arboretum.

There is minimal habitat for wildlife on Grand Forks AFB due to extensive development. White tail deer, eastern cottontail, and ring-neck pheasant can be found on base. The proposed project area only provides low-quality foraging habitat for small animals.

3.6.3 Threatened and Endangered Species

According to the 1994 ND Natural Heritage Inventory, "There are no known federally threatened or endangered species populations on or adjacent to Grand Forks AFB." The base does have infrequent use by migratory threatened and endangered species, such as the bald eagle and peregrine falcon, but there are no critical or significant habitats for those species present. The inventory also indicated that red-breasted nuthatch and moose are two special concern species. They have been observed on base near Turtle River. The inventory also indicated that there is no habitat on or near Grand Forks AFB to sustain a moose population. Red-breasted nuthatches prefer woodland habitats dominated by conifers. These birds are transients and pose no particular concern. The ESA does require that Federal Agencies not jeopardize the existence of a threatened or endangered species nor destroy or adversely modify designated critical habitat for threatened or endangered species.

3.7 SOCIOECONOMIC RESOURCES

Grand Forks County is primarily an agricultural region and, as part of the Red River Valley, is one of the world's most fertile. Cash crops include sugar beets, beans, corn, barley, and oats. The valley ranks first in the nation in the production of potatoes, spring wheat, sunflowers, and durum wheat. Grand Forks County's population in 2000 was 66,109, a decrease of 6.5 percent from the 1990 population of 70,638 (ND State Data Center, No Date). Grand Forks County's annual mean wage in Oct 2001 was $26,715 (Job Service of ND, 2001). Grand Forks AFB is one of the largest employers in Grand Forks County. As of May 2003, Grand Forks AFB had 3, 165 active duty military members and 338 civilian employees. The total annual economic impact for Grand Forks AFB is $325,647, 980.

3.8 CULTURAL RESOURCES

According to the Grand Forks AFB Cultural Resources Management Plan, there are no archeological sites that are potentially eligible for the National Register of Historic Places (NRHP). A total of six archeological sites and six archeological find spots have been identified on the base. None meet the criteria of eligibility of the NRHP established in 36 CFR 60.4. There is no evidence for Native American burial grounds, or other culturally sensitive areas. Paleosols (soil that developed on a past landscape) remain a management concern requiring Section 106 compliance. Reconnaissance-level archival and archeological surveys of Grand Forks AFB conducted by the University of ND in 1989 indicated that there are no facilities (50 years or older) that possess historical significance. The base is currently consulting with the ND Historical Society on the future use of eight Cold War Era facilities. These are buildings 313, 606, 703-707, and 714.

3.9 LAND USE

Land use in Grand Forks County consists primarily of cultivated crops with remaining land used for pasture and hay, urban development, recreation, and wildlife habitat. Principal crops are spring wheat, barley, sunflowers, potatoes, and sugar beets. Turtle River State Park, developed as a recreation area in Grand Forks County, is located about five miles west of the base. Several watershed protection dams are being developed for recreation activities including picnicking, swimming, and ball fields. Wildlife habitat is very limited in the county. Kelly's Slough NWR (located about two miles east of the base) and the adjacent National Waterfowl Production Area are managed for wetland wildlife and migratory waterfowl, but they also include a significant acreage of open land wildlife habitat.

The main base encompasses 5,420 acres, of which the AF owns 4,830 acres and another 590 acres are lands containing easements, permits, and licenses. Improved grounds, consisting of all covered area (under buildings and sidewalks), land surrounding base buildings, the 9-hole golf course, recreational ballfields, and the family housing area, encompass 1,120 acres. Semi-improved grounds, including the airfield, fence lines and ditch banks, skeet range, and riding stables account for 1,390 acres. The remaining 2,910 acres of the installation consist of unimproved grounds. These areas are comprised of woodlands, open space, and wetlands, including four lagoons (180.4 acres) used for the treatment of base wastewater. Agricultural outleased land (1,040 acres) is also classified as unimproved. Land use at the base is solely urban in nature, with residential development to the south and cropland, hayfields, and pastures to the north, west, and east.

3.10 TRANSPORATION SYSTEMS

Seven thousand vehicles per day travel ND County Road B3 from Grand Forks AFB's east gate to the US Highway 2 Interchange (Clayton, 2001). Two thousand vehicles per day use the off-ramp from US Highway 2 onto ND County Road B3 (Dunn, 2001). US Highway 2, east of the base interchange, handles 10,800 vehicles per day. (Kingsley and Kuntz, 2001). A four lane

arterial road has a capacity of 6,000 vehicles per hour and a two lane, 3,000, based on the average capacity of 1,500 per hour per lane. Roadways adjacent to Grand Forks AFB are quite capable of accommodating existing traffic flows (USAF, 2001a).

Grand Forks AFB has good traffic flow even during peak hours (6-8 am and 4-6 pm). There are two gates: the main gate located off of County Road B-3, about one mile north of U.S. Highway 2, and the Secondary Gate located off of U.S. Highway 2, about 3/4 mile west of County Road B-3. The main gate is connected to Steen Blvd, which is the main east-west road, and the south gate is connected to Eielson St, which is the main north-south road.

3.11 AIRSPACE/AIRFIELD OPERATIONS

3.11.1 AIRCRAFT SAFETY

Bird Aircraft Strike Hazard (BASH) is a major safety concern for military aircraft. Collision with birds may result in aircraft damage and aircrew injury, which may result in high repair costs or loss of the aircraft. A BASH hazard exists at Grand Forks AFB and its vicinity, due to resident and migratory birds. Daily and seasonal bird movements create various hazardous conditions. Although BASH problems are minimal, Kelly's Slough NWR is a major stopover for migratory birds. Canadian Geese and other large waterfowl have been seen in the area (USAF, 2001b).

3.11.2 AIRSPACE COMPATIBILITY

The primary objective of airspace management is to ensure the best possible use of available airspace to meet user needs and to segregate requirements that are incompatible with existing airspace or land uses. The Federal Aviation Administration has overall responsibility for managing the nation's airspace and constantly reviews civil and military airspace needs to ensure all interests are compatibly served to the greatest extent possible. Airspace is regulated and managed through use of flight rules, designated aeronautical maps, and air traffic control procedures and separation criteria.

3.12 SAFETY AND OCCUPATIONAL HEALTH

Safety and occupational health issues include one-time and long-term exposure. Examples include asbestos/radiation/chemical exposure, explosives safety quantity-distance, and bird/wildlife aircraft hazard. Safety issues include injuries or deaths resulting from a one-time accident. Aircraft Safety includes information on birds/wildlife aircraft hazards and the BASH program. Health issues include long-term exposure to chemicals such as asbestos and lead-based paint. Safety and occupational health concerns could impact personnel working on the project and in the surrounding area.

The National Emission Standards for Hazardous Air Pollutants (NESHAP) of the CAA designates asbestos as HAP. OSHA provides worker protection for employees who work around or asbestos containing material (ACM). Regulated ACM (RACM) includes thermal system

insulation (TSI), any surfacing material, and any friable asbestos material. Non-regulated Category I non-friable ACM includes floor tile and joint compound.

Lead exposure can result from paint chips or dust or inhalation of lead vapors from torch-cutting operations. This exposure can affect the human nervous system. Due to the size of children, exposure to lead based paint is especially dangerous to small children. OSHA considers all painted surfaces in which lead is detectable to have a potential for occupational health exposure.

3.13 ENVIRONMENTAL MANAGEMENT

3.13.1 INSTALLATION RESTORATION PROGRAM

The Installation Restoration Program (IRP) is the AF's environmental restoration program based on the CERCLA. CERCLA provides for Federal agencies with the authority to inventory, investigate, and clean up uncontrolled or abandoned hazardous waste sites. There are seven IRP sites at Grand Forks AFB. These sites are identified as potentially impacted by past hazardous material or hazardous waste activities. They are the Fire Training Area/Old Sanitary Landfill Area, New Sanitary Landfill Area, Strategic Air Ground Equipment (SAGE) Building 306, Explosive Ordnance Detonation Area, Refueling Ramps and Pads, Base Tanks Area, and POL Off-Loading Area (USAF, 1997b). Two sites are considered closed, OT-05 and ST-06. ST-08 has had a remedial investigation/feasibility study (RI/FS) completed and the rest are in long-term monitoring. Grand Forks AFB is not on the National Priorities List (NPL)

3.13.2 GEOLOGICAL RESOURCES

3.13.2.1 Physiography and Topography

The topography of Grand Forks County ranges from broad, flat plains to gently rolling hills that were produced mainly by glacial activity. Local relief rarely exceeds 100 feet in one mile, and, in parts of the lake basin, less than five feet in one mile.

Grand Forks AFB is located within the Central Lowlands physiographic province. The topography of Grand Forks County, and the entire Red River Valley, is largely a result of the former existence of Glacial Lake Agassiz, which existed in this area during the melting of the last glacier, about 12,000 years ago (Stoner et al., 1993). The eastern four-fifths of Grand Forks County, including the base, lies in the Agassiz Lake Plain District, which extends westward to the Pembina escarpment in the western portion of the county. The escarpment separates the Agassiz Lake Plain District from the Drift Plain District to the west. Glacial Lake Agassiz occupied the valley in a series of recessive lake stages, most of which were sufficient duration to produce shoreline features inland from the edge of the lake. Prominent physiographic features of the Agassiz Lake Plain District are remnant lake plains, beaches, inter-beach areas, and delta plains. Strandline deposits, associated with fluctuating lake levels, are also present and are indicated by narrow ridges of sand and gravel that typically trend northwest-southwest in Grand Forks County.

Grand Forks AFB lies on a large lake plain in the eastern portion of Grand Forks County. The lake plain is characterized by somewhat poorly drained flats and swells, separated by poorly drained shallow swells and sloughs (Doolittle et al., 1981). The plain is generally level, with local relief being less that one foot. Land at the base is relatively flat, with elevations ranging from 880 to 920 feet mean sea level (MSL) and averaging about 890 feet MSL. The land slopes to the north at less than 12 feet per mile

3.13.2.2 Soil Type Condition

Soils consist of the Gilby loam series that are characterized by deep, somewhat poorly drained, moderately to slowly permeable soils in areas between beach ridges. The loam can be found from 0 to 12 inches. From 12 to 26 inches, the soil is a mixture of loam, silt loam, and very fine sandy loam. From 26 to 60 inches, the soil is loam and clay loam.

3.13.3 PESTICIDE MANAGEMENT

Pesticides are handled at various facilities including Environmental Controls, Golf Course Maintenance, and Grounds Maintenance. Other organizations assist in the management of pesticides and monitoring or personnel working with pesticides. Primary uses are for weed and mosquito control. Herbicides, such as Round-up, are used to maintain areas adjacent to roadways. Military Public Health and Bioenvironmental Engineering provide information on the safe handling, storage, and use of pesticides. Military Public Health maintains records on all pesticide applicators. The Fire Department provides emergency response in the event of a spill, fire, or similar type incident.

3.14 ENVIRONMENTAL JUSTICE

Environmental justice addresses the minority and low-income characteristics of the area, in this case Grand Forks County. The county is more than 93 percent Caucasian, 2.3 percent Native American, 1.4 percent African-American, 1 percent Asian/Pacific Islander, less than 1 percent Other, and 1.6 percent "Two or more races". In comparison, the US is 97.6 percent Caucasian, 12.3 African-American, 0.9 percent Native American or Native Alaskan, 3.6 percent Asian, 0.1 Native Hawaiian or Pacific Islander, 5.5 percent Other, and 2.4 percent "Two or more races". Approximately 12.5 percent of the county's population is below the poverty level in comparison to 13.3 percent the state (US Bureau of the Census, 2002). There are few residences and no concentrations of low-income or minority populations around Grand Forks AFB.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

The effects of the proposed action and the alternatives on the affected environment are discussed in this section. The project involves repair of ditch crossings and replacement of culverts located in the North Ditch to the east of Grand Forks AFB.

4.2 AIR QUALITY

4.2.1 Alternative 1 (Proposed Action)

Construction activities would result in a short-term minimal increase of criteria air pollutants, as fuel (gasoline and diesel) that is burned by internal combustion engine power construction and earth-moving equipment. Heavy construction equipment would generate the most emissions. The constituents of exhaust include CO, NO_x, and VOCs. Earth moving activities would generate fugitive dust (PM_{10}). Fugitive dust emissions and construction vehicle exhaust would be generated by all phases of construction, but the dust would be controlled to the maximum extent possible by utilizing wind barriers and stabilizing the exposed soil. Best management practices to reduce fugitive emissions, such as daily watering of the disturbed ground and replacing ground cover in disturbed areas as quickly as possible, would be implemented to the maximum extent possible to reduce the amount of these emissions. This short-term increase in combustion related pollutants would occur only during construction and impacts to air quality would not be significant. Air Quality in ND is considered good and the area is in attainment for all criteria pollutants.

4.2.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.2.3 Alternative 3 (No Action)

The no action alternative would have no impact on air quality.

4.3 NOISE

4.3.1 Alternative 1 (Proposed Action)

The short-term operation of heavy equipment in the construction area would generate additional noise. These noise impacts would exist only during construction and would cease after completion. The increase in noise from construction activities would be negligible.

4.3.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.3.3 Alternative 3 (No Action)

The no action alternative would have no impact on noise.

4.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

4.4.1 Alternative 1 (Proposed Action)

The increase in hazardous and solid wastes from construction related activities would be minimal and temporary. Construction debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill, which is located within 12 miles of the construction site.

4.4.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.4.3 Alternative 3 (No Action)

The no action alternative would have no impact on hazardous or solid waste generation.

4.5 WATER RESOURCES

4.5.1 Alternative 1 (Proposed Action)

Groundwater: Excavation would most probably not intercept the water table. If the excavated area fills with surface water, which is contaminated by materials used during construction, groundwater could be exposed to contaminants by infiltration. Provided best management practices are followed, there would be minimal impacts to ground water.

Surface Water: Surface water quality could degrade in the short-term, during actual construction, due to possible erosion contributing to turbidity of runoff and due to possible contamination from spills, leaks from construction equipment. Surface water could be impacted if, due to storm water inflow to the excavation, the operators would need to pump out the excavation. The operator shall utilize effective methods to control surface water runoff and to minimize erosion. Proper stabilization and seeding the site immediately upon completion of the construction would provide beneficial vegetation to control erosion. Provided best management practices are utilized during construction, negative surface water impacts should be minimal.

Water Quality: Provided all containment needs are met and best management practices are used, the proposed action would have minimal impact to water quality.

Wastewater: The proposed action would have no impact on wastewater.

Wetlands: The proposed action would have no impact on wetlands.

4.5.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.5.3 Alternative 3 (No Action)

The no action alternative would have no impact on water resources.

4.6 BIOLOGICAL RESOURCES

4.6.1 Alternative 1 (Proposed Action)

Vegetation: Best management practices and control measures, including silt fences and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. The amount of vegetation disturbed would be kept to the minimum required to complete the action. Disturbed areas would be re-established.

Wildlife: Construction would have insignificant impacts to wildlife. These areas provide low quality foraging habitat for small mammals, such as mice and rabbits. Due to the abundance and mobility of these species and the profusion of natural habitats in the general vicinity, any wildlife disturbed would be able to find similar habitat in the local area.

Threatened or Endangered Species: According to the 1994 ND Natural Heritage Inventory (1994), "There are no known federally threatened or endangered species populations on or adjacent to Grand Forks AFB." The construction area does not include optimal habitat for any of the transient federal-or state-listed species that may occur in Grand Forks County.

4.6.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.6.3 Alternative 3 (No Action)

The no action alternative would have no impact on biological resources.

4.7 SOCIOECONOMIC RESOURCES

4.7.1 Alternative 1 (Proposed Action)

Repair of the crossings and replacement of the culverts would be completed under contract. Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, minimal beneficial impact to local retailers during the construction phase of the project.

4.7.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.7.3 Alternative 3 (No Action)

The no action alternative would have no impact on socioeconomics.

4.8 CULTURAL RESOURCES

4.8.1 Alternative 1 (Proposed Action)

The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

4.8.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.8.3 Alternative 3 (No Action)

The no action alternative would have no impact on cultural resources.

4.9 LAND USE

4.9.1 Alternative 1 (Proposed Action)

The proposed construction would not have an impact on land use.

4.9.2 Alternative 2

Alternative 2 would not have an impact on land use.

4.9.3 Alternative 3 (No Action)

The no action alternative would have no impact on land use.

4.10 TRANSPORTATION SYSTEMS

4.10.1 Alternative 1 (Proposed Action)

Roadways on and adjacent to Grand Forks AFB are quite capable of accommodating existing traffic flows. There would be a minimal increase to traffic flows from the contractor traveling to the construction site.

4.10.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.10.3 Alternative 3 (No Action)

The action would have no impact on transportation.

4.11 AIRSPACE/AIRFIELD OPERATIONS

4.11.1 Alternative 1 (Proposed Action)

The proposed action would have no impact on aircraft safety or airspace compatibility.

4.11.2 Alternative 2

The action would have no impact on aircraft safety or airspace compatibility.

4.11.3 Alternative 3 (No Action)

The no action alternative would have no impact on aircraft safety or airspace compatibility.

4.12 SAFETY AND OCCUPATIONAL HEALTH

4.12.1 Alternative 1 (Proposed Action)

The proposed action would provide a crossing for farmers to access their fields.

4.12.2 Alternative 2

This alternative does not eliminate safety concerns due to the culverts reaching the end of their useful life.

4.12.3 Alternative 3 (No Action)

The no action alternative would not correct existing safety concerns and still would not be safe for farmers to access their fields via the ditch crossings.

4.13 ENVIRONMENTAL MANAGEMENT

4.13.1.1 Alternative 1 (Proposed Action)

IRP: The proposed action would have no impact on an IRP Sites.

Geology: Sediment located at the proposed construction site would be temporarily disturbed during construction. Underlying geology in some areas could be affected by construction activities. Best management practices would be implemented to prevent erosion. The hazard of wind erosion is moderate and considerable erosion could occur on stockpiled soils. Best management practices, such as daily watering and revegetating soils as soon as possible would reduce the impacts of erosion. At the conclusion of construction, the disturbed soils would be rolled and reseeded.

Pesticides: No pesticides would be used as part of this project.

4.13.1.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.13.1.3 Alternative 3 (No Action)

The no action alternative would have no impact on IRP Sites or geological resources. No pesticides would be used as part of this project.

4.14 ENVIRONMENTAL JUSTICE

4.14.1 Alternative 1 (Proposed Action)

EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

4.14.2 Alternative 2

Impacts would be similar to those generated under the proposed action.

4.14.3 Alternative 3 (No Action)

The no action alternative would not impact safety and occupational health.

4.15 INDIRECT AND CUMULATIVE IMPACTS

The short-term increases in air emissions and noise during construction and the impacts predicted for other resource areas, would not be significant when considered cumulatively with other ongoing and planned activities at Grand Forks AFB and nearby off-base areas. The cumulative impact of the Proposed Action or Alternative with other ongoing construction in the area would produce and increase in solid waste generation; however, the increase would be limited to the timeframe of each construction project. The area landfill used for construction and demolition debris does not have capacity concerns and could readily handle the solid waste generated by the various projects.

4.16 UNAVIODABLE ADVERSE IMPACTS

The use of construction-related vehicles and their short-term impacts on noise, air quality, and traffic is unavoidable.

4.17 RELATIONSHIP BETWEEN SHORT-TERM USES AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed action and alternative would involve the use of previously developed areas. No croplands, pastureland, wooded areas, or wetlands would be modified or affected as a result of implementing the Proposed Action or Alternative and, consequently, productivity of the area would not be degraded. The project would improve conditions in the ditch correct current problems with soil erosion.

4.18 IRREVERSIVLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Under the proposed action, fuels, manpower, economic resources, fill and other construction materials related to the repair of the ditch crossing and replacement of the culverts would be irreversibly lost.

5.0 LIST OF PREPARERS

Heidi Durako
Natural and Cultural Resources
319 CES/CEVA
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205

6.0 LIST OF AGENCIES AND PERSONS CONSULTED AND/OR PROVIDED COPIES

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Everett "Gene" Crouse
Chief, Airfield Management
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Gary Raknerud
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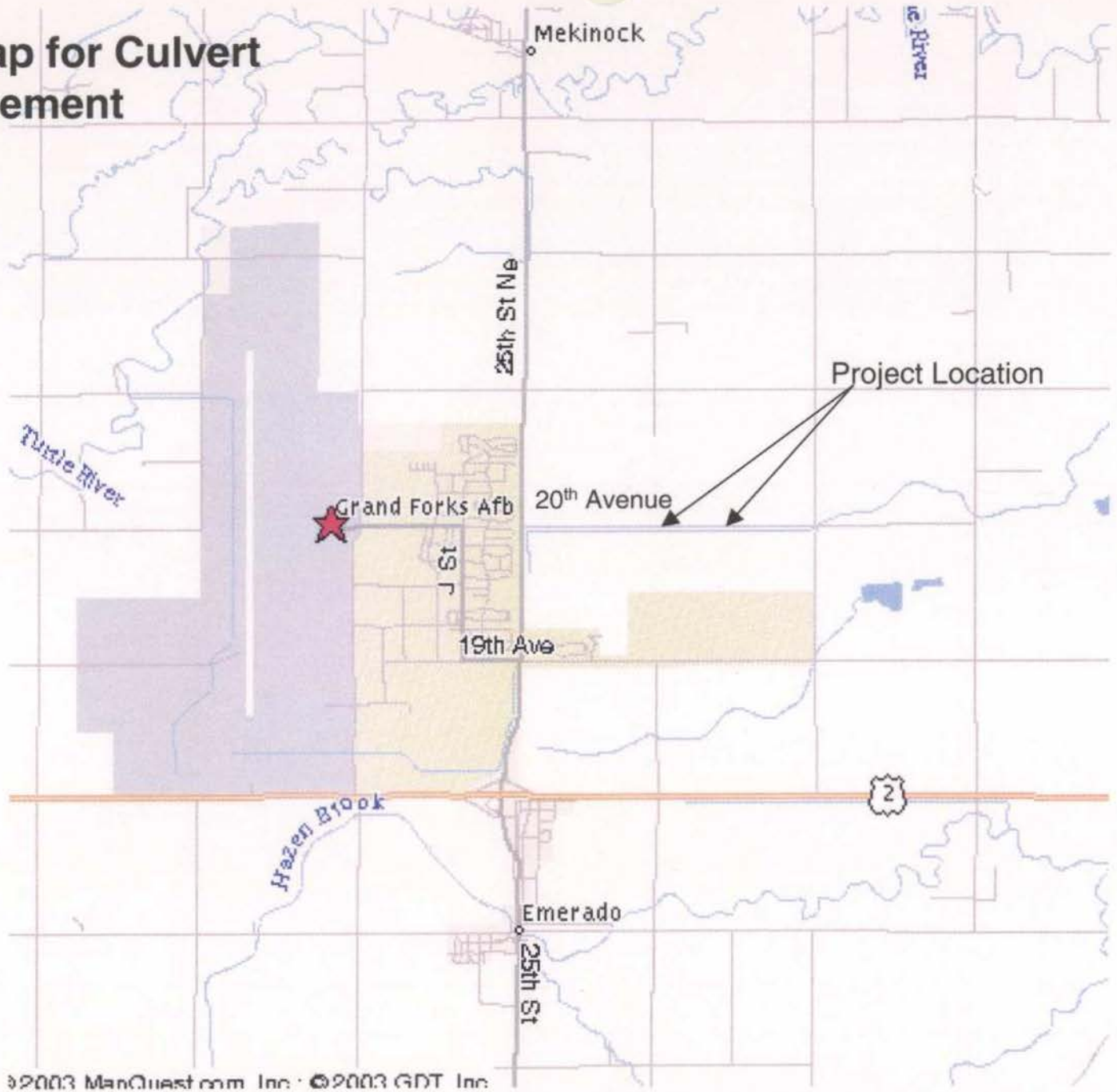
APPENDIX A
LOCATION MAP

Grand Forks AFB, ND

Location Map

Site Map for Culvert Replacement



APPENDIX B
SITE PHOTOGRAPHS


JUL 7 2008
West Crossing

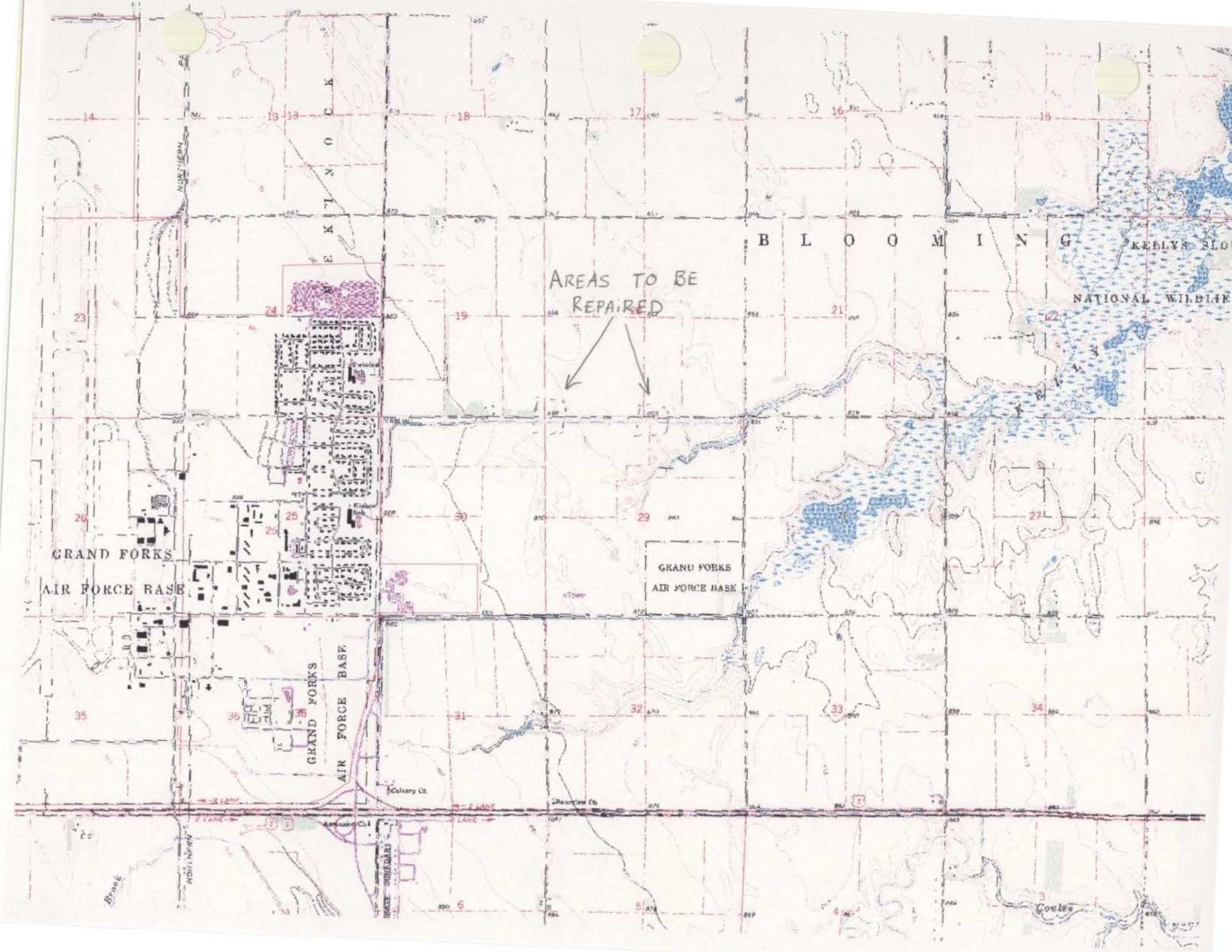

JUL 7 2003
West Crossing


JUL 7 2003
West Crossing


JUL 7 2003
East Crossing


JUL 7 2003
East Crossing


JUL 7 2003
East Crossing


AREAS TO BE REPAIRED
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GRAND FORKS AIR FORCE BASE
GRAND FORKS AIR FORCE BASE
B L O O M I N G
NATIONAL WILDLIFE
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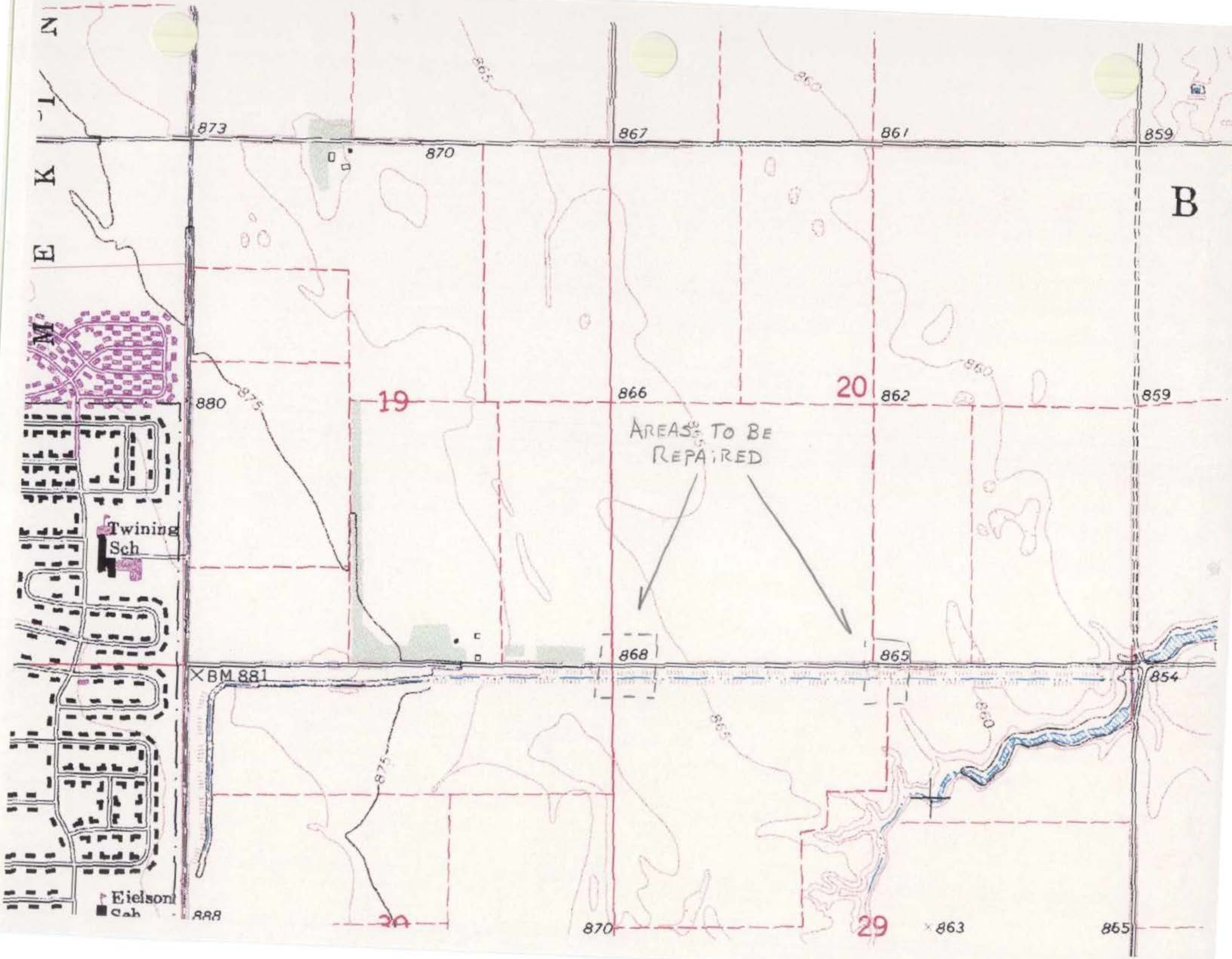
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APPENDIX C
STATEMENT OF WORK

June 10, 2003

Statement of Work

North Ditch Crossing Culvert Replacement

1. SCOPE:

1.1. Submittal of three separate bids, after on site visit, based upon:
   1) Resetting of existing Reinforce Concrete Pipes (RCP) at crossings described within.
   2) Replacement of existing RCP with Corrugated Metal Pipes (CMP) provided by the Government.
   3) Resetting RCP at one crossing and CMP installed at the other crossing.

1.2. Each crossing currently consists of five (5) RCP with aprons on the inlet and outlet.

1.3. Location: The site of the work is the North Ditch located approximately 1 mile north of the intersection of Grand Forks Air Force Base Main Gate road and Hwy B-3 and east along the gravel road 1.2 miles to crossing 1 and an additional 0.5 miles to crossing 2. (Refer to attached map)

1.4. The Contractor is responsible for performing a site visit with a representative of the Contracting Officer prior to placing a bid.

2. PRINCIPLE FEATURES:

The work to be performed includes but is not limited to the following:

2.1. Temporary removal and storage of all obstructions (e.g. fence posts and fencing material) within the area to be excavated or storage areas.

2.2. Excavate at crossings to reset and/or replace culvert sections.

2.3. Replacement culverts, if necessary, shall be provided by the Government unless written authorization is provided by the Contracting Officer.

2.4. Culverts shall be installed in a manner that continues the slope of the ditch. Fill material required to accomplish this shall be provided by the Government and delivered to the site unless written authorization is provided by the Contracting Officer.

2.5. Inspection and approval by a representative of the Contracting Officer of the site shall occur upon completion of reset/replacement of culvert sections and prior to back-filling.

2.6. Crossings shall be re-established to correspond to conditions prior to excavation. Fill material shall be provided by the Government and compacted in lifts of no greater than 6 inches. Verification of crossing dimensions prior to and after excavation shall be accomplished by the Government.

2.7. Replace all previously removed obstructions to correspond to placement prior to removal.

2.8. The above general outline of principle features does not in any way limit the responsibility of the Contractor to perform all work and furnish all plant, labor, and materials required by the specifications and contract drawings. In addition to other safety codes and manuals referenced in the contract documents, all work must be performed in accordance with applicable Occupational Safety and Health Administration (OSHA) regulations and industry accepted safe practices.

3. STANDARD TESTS, QUALITY, AND GUARANTEES:
The Government shall provide surveying support to determine existing crossing conditions, proper culvert placement and crossing restoration. Request for support must be submitted in writing no less than three days prior to commencement of work. Independent surveys performed by the Contractor are the responsibility of the Contractor and will not be reimbursed by the Government.

4. DELETED

5. DELETED

6. FIRE REGULATIONS: Compliance with local, Air Force, and NFPA 241 (Safeguarding Building Construction and Building Operation) regulations are mandatory. Fire extinguishers rated and approved by the National Fire Protection Association; of sufficient size, type, and quantity to cope with all known hazards, will be available and provided by the Contractor during the execution of this contract.

7. DELETED

8. STORAGE AREA AGREEMENT: For storage area other than on the job site, the Contractor will complete a Storage Area Agreement form prior to use of the area. This can be obtained from Contract Management.

9. DELETED

10. CONTINUED USE OF FACILITIES: The Contractor shall be responsible for continued and functional use of the North Ditch. The Contractor will submit for approval a written procedure for water management prior to excavation.

11. NOTIFICATION OF THE MAINENTANCE OPERATIONS OFFICE: The Contractor shall notify Boyd Johnson (747-3905) at least three days prior to the start of all work. This shall include, but is not limited to, notification when the initial work shall begin; when work shall resume after stoppage exceeding three work days; and when work shall begin following all specified exclusion periods.

12. DELETED

13. ENVIRONMENT PROTECTION:

    13.1. Scope: The contractor shall perform all work in such a manner as to prevent the polluting of air, water, or land, and shall follow all applicable federal, state, and local regulations and guidelines.

    13.2. Applicable Publications: The publications listed below form a part of this specification to the extent referenced. The publications referred to in the text by the basic designation only.

13.2.1. United States Environmental Protection Agency EPA 832-R-92-005 *Storm Water Management for Construction Activities*

13.3. DELETED

13.4. Preconstruction Survey: Prior to start of any on-site construction activities, the Contractor and the Contracting Officer's representative shall make a joint condition survey after which the Contractor shall prepare a brief report indicating on a layout plan the condition of trees, shrubs, and grassed areas immediately adjacent to the site of the work and adjacent to his assigned storage area and access route(s) as applicable. This report will be signed by both the Contracting Officer's designated representative and Contractor upon mutual agreement as to its accuracy and completeness.

13.5. Storm Water Protection Plan: Grand Forks Air Force Base has been issued a National Pollutant Discharge Elimination System (NPDES) permit for storm water runoff, permit number NDR02-0314. The contractor shall be responsible for strict adherence to the NPDES permit. The NPDES permit is available for contractor review at 319 CES/CEV, 525 6th Ave., Grand Forks AFB, ND. The Contractor shall comply with applicable Federal, State, County, and Municipal laws concerning pollution of rivers and streams while performing work under this contract. Special measures shall be taken to prevent pollutants including rock, sand, sediment, dirt, chemicals, fuels, oils, greases, bituminous materials, herbicides, and insecticides from entering public waters (this includes eliminating sediment from entering the storm drain inlets). Water used in on-site material processing, concrete curing, foundation and concrete cleanup, and other waste waters shall not be allowed to reenter a stream if an increase in the turbidity of stream could result. A **Storm Water Protection Plan** must be submitted to the Contracting Officer for review and approval by the CO and 319 CES/CEV. The Storm Water Protection Plan must identify all special measures proposed by the Contractor to prevent storm water pollution.

13.6. Waste Disposal Plan: As part of his proposed implementation under paragraph 13.3. and prior to on-site construction, the contractor shall submit a **Waste Disposal Plan** to the Contracting Officer for review and approval by the CO and 319 CES/CEV for disposing of waste materials resulting from the work under his contract. This plan must include, but not limited to collection methods, securing the load, transportation, disposal site identification, and proof of disposal.

13.6.1. If any waste material is dumped in areas not permitted by the North Dakota Department of Health or the State of Minnesota, the Contractor shall remove the material, dispose of the material in accordance with applicable technical provisions, and restore the area to the condition of the adjacent undisturbed areas. Where directed, ground contaminated by the Contractor shall be excavated, disposed of as approved, and replaced with suitable fill material, all at the expense of the contractor.

13.7. Salvageable Materials: In the event that replacement of culverts is deemed necessary by the Contracting Officer, the Contractor may assume ownership of the concrete culverts and remove from site at no cost to the Government.

13.8. DELETED

13.9. Corrective Action: The Contractor shall, upon receipt of a notice in writing of any noncompliance with the foregoing provisions, take immediate corrective action. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs of damages by the Contractor unless it was later determined that the Contractor was in compliance.

13.10. Deleted

13.11 Deleted

13.12. Spill Control Plan. All hazardous material/waste spills must be reported to the Contracting Officer. Any release of a hazardous material/waste which is beyond the capability of the contractor must be reported to 911 immediately. The Contractor will notify and provide complete documentation of spills to 319 CES/CEVP. Documentation will include the date and time of spill, location, quantity, and an MSDS of the spilled material. 319 CES/CEVP will file any required reports with Federal, State, and local agencies. The **Spill Control Plan** must be submitted to the CO for review and approval by the CO and 319 CES/CEV. The plan must include, but limited to, identifying potential spill sources, control measures, contaminated soil removal and disposal, notifications.

13.13 **Erosion and Sediment Control Plan:** Project activities that include digging, scraping, stockpiling, or re-grading have the potential to be eroded and create sediment problems at the project site as well as areas adjacent to the site. An **Erosion and Sediment Control Plan** must be submitted to the CO for review and approval by the CO and 319 CES/CEV. The plan must include, but not limited to, stockpile location, control methods to eliminate erosion of stockpile, identify exposed natural areas and appropriate control methods.

14. DISPOSAL OF CONSTRUCTION DEBRIS: Disposal of construction debris to include soil material and culverts shall be the responsibility of the Contractor. Hazardous waste or debris generated by the Contractor outside the scope of excavation and culvert placement shall be the responsibility of the Contractor.

15. DELETED

16. FOLLOW UP INSPECTIONS shall be performed continuously as any particular feature of work progresses, to assure compliance with contract requirements including control testing, until completion of that feature of the work.

APPENDIX D
EASEMENT

Vouch 59-79 Page 3 of 7

Real Estate
TRANSFER OF ~~CONSTRUCTION~~ (SR 735-7-3)

1/59 C-77-59

STATION	SERIAL NO.	JOB NO.	DATE
Grand Forks AFB, North Dakota			25 July 1958

TYPE OF BUILDING OR FEATURE (1)	NO. UNITS (2)	DRAWING NO. (3)	BASE DATA (Lin. Ft., Sq. Ft., Gals./Day, Etc.) UNIT (4)	TOTAL QUANTITY (5)	REMARKS (6)
Tract A-103E-2: The South 50 feet of the North					Tracts A-103E-2 and A-103E-3:
183 feet of Lot 1 in Section 31, Township 152					Received from George W. Eccles
North, Range 52 West of the 5th Principal Meridian,					310 6th Ave. North, Grand Forks
containing 2.18 acres, more or less.			acres	2.18	North Dakota.
					Cost: $285.00
Tract A-103E-3: The South 50 feet of the North					Tracts A-140E and A-141E:
233 feet of Lot 1 in Section 31, Township 152					Received from George E. Eccles
North, Range 52 West of the 5th Principal Meridian,					519 North 3rd, Grand Forks,
containing 2.18 acres, more or less.			acres	2.18	North Dakota.
					Cost: $6,410.00
Tract A-140E: A tract of land situated in the N½					Acquired by Deed of Easement
Section 29, Township 152 North, Range 52 West					A-103E-2 & A-103E-3 - 20 June 58
of the 5th P.M., more particularly described as					A-140E & A-141E - 27 June 1958
follows: the South 217 feet of the North 250 feet					
of said N½ of said Section 29, containing 26.30					Acquisition authorized by P.L.
acres, more or less.			acres	26.30	534, 83rd Congress and 161, 84th
					Congress; and funded under P.L.
					663 83rd Congress and P.L. 219
Tract A-141E: A tract of land situated in the N½NE¼					84th Congress.
of Section 30, Township 152 North, Range 52 West of					
the 5th P.M., more particularly described as follows:					There were no buildings or
the South 217 feet of the North 250 feet of said					growing crops purchased with
N½NE¼, containing 13.15 acres, more or less.			acres	13.15	the above tracts of land.

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~
~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX (insert name of using agency) except for the deficiencies listed on the back of the sheet.~~
~~Miscellaneous items to be delivered XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

ACCEPTED BY:

John P. Alleman Capt USAF
John F. Alleman, Captain, USAF
POST ENGINEER

E E Buntford
COMMANDING OFFICER
Commander

E. J. Radik
RESIDENT ENGINEER
E. J. RADIK
DISTRICT ENGINEER
PROPERTY AND SUPPLY SUPERVISOR

ENG FORM 1 JUN 57 290 EDITION OF 1 APR 52 MAY BE USED

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Book 59-79 Page 6 of 7

A TRUE COPY

V. P. QUINLAN
Closing Attorney

259654

Grand Forks Airs Force Base Project

Tracts A-140E and A-141E

DEED OF EASEMENT Book 55 MISCL. PAGE 25

THIS INDENTURE, made this 7th day of January in the year 19 58, between George Eccles, also known as George E. Eccles, and Elizabeth Eccles, his wife, and George William Eccles, also known as William Eccles, and Veronica Eccles, his wife, parties of the first part, and the United States of America, of Washington, D. C., party of the second part:

WITNESSETH, that the said parties of the first part, for and in consideration of the sum of Six Thousand Four Hundred Ten and no/100 Dollars ($6,410.00) to them in hand paid by said party of the second part, the receipt of which is hereby acknowledged, do by these presents grant, bargain, sell and convey unto said party of the second part and its assigns forever a perpetual easement and right of way in and to the following described tracts of land lying and being in the County of Grand Forks and State of North Dakota and described as follows, to-wit:

A-140E

A tract of land situated in the N½ of Section 29, Township 152 North, Range 52 West of the Fifth Principal Meridian, more particularly described as follows: the South 217.00 feet of the North 250.00 feet of said N½ of said Section 29. The tract of land herein described contains 26.30 acres, more or less.

A-141E

A tract of land situated in the N½NE¼ of Section 30, Township 152 North, Range 52 West of the Fifth Principal Meridian, more particularly described as follows: the South 217.00 feet of the North 250.00 feet of said N½NE¼. The tract of land herein described contains 13.15 acres, more or less.

Subject, however, to existing easements for public roads and highways, for public utilities, for railroads and pipe lines.

The easement and right of way hereby granted to the United States of America and its assigns shall be for the following purposes: namely, a perpetual easement and right of way to construct, maintain, repair, operate, patrol, replace and/or remove a drainage ditch in, upon, under, over and across the tracts of land herein described, together with the right to trim, cut, fell and remove therefrom all trees and underbrush and obstructions and any other vegetation, structures or obstacles within the limits of the easement and right of way and for such distance beyond said limits and adjacent thereto as is necessary to provide adequate clearance and to eliminate interference with, or hazards to the structures or utilities placed or constructed on, over, or under said land within the limits of said easement and right of way.

TO HAVE AND TO HOLD the above described easement and right of way unto the said United States of America and its assigns forever.

And the said parties of the first part do covenant with the party of the second part and with its assigns that they are well seized in fee of the land and premises aforesaid and have good right to sell and convey the easement and right of way in manner and form aforesaid; that the land and premises aforesaid are free from all encumbrances; and the said parties of the first part will warrant and defend said party of the second part and its assigns in the quiet and peaceable enjoyment of the above granted easement and right of way against all persons lawfully claiming or to claim the whole or any part thereof.

In consideration of the premises, it is expressly understood and agreed that the above specified sum liquidates in full all damages whatsoever that have occurred, or may hereafter occur, to the tracts of land herein described, and to the appurtenances thereunto belonging, and it is further agreed that the parties of the first part waive all claims whatsoever against the United States of America arising from the flowage of water from the drainage ditch onto the adjoining property.

Page 7

Vouch 59-79 Page 7 of 7 -

IN WITNESS WHEREOF, the said parties of the first part hereunto set their hands the day and year first above written.

/S/ George E. Eccles

/S/ Elizabeth Eccles

/S/ William Eccles

/S/ Veronica Eccles

STATE OF NORTH DAKOTA)
) SS
COUNTY OF GRAND FORKS)

On this 7th day of January, in the year 1958 before me personally appeared George Eccles, also known as George E. Eccles, and Elizabeth Eccles, his wife, known to me to be the persons who are described in and who executed the within instrument, and acknowledged to me that they executed the same.

SEAL
STAMP AFFIXED

/S/ Gordon Caldis
Notary Public

My commission expires:

May 12, 1963

Gordon Caldis, Notary Public
Grand Forks County, North Dakota
My commission expires May 12, 1963

STATE OF NORTH DAKOTA)
) SS
COUNTY OF GRAND FORKS)

On this 7th day of January, in the year 1958 before me personally appeared George William Eccles, also known as William Eccles, and Veronica Eccles, his wife, known to me to be the persons who are described in and who executed the within instrument, and acknowledged to me that they executed the same.

SEAL
STAMP AFFIXED

Gordon Caldis
Notary Public

My commission expires:

May 12, 1963

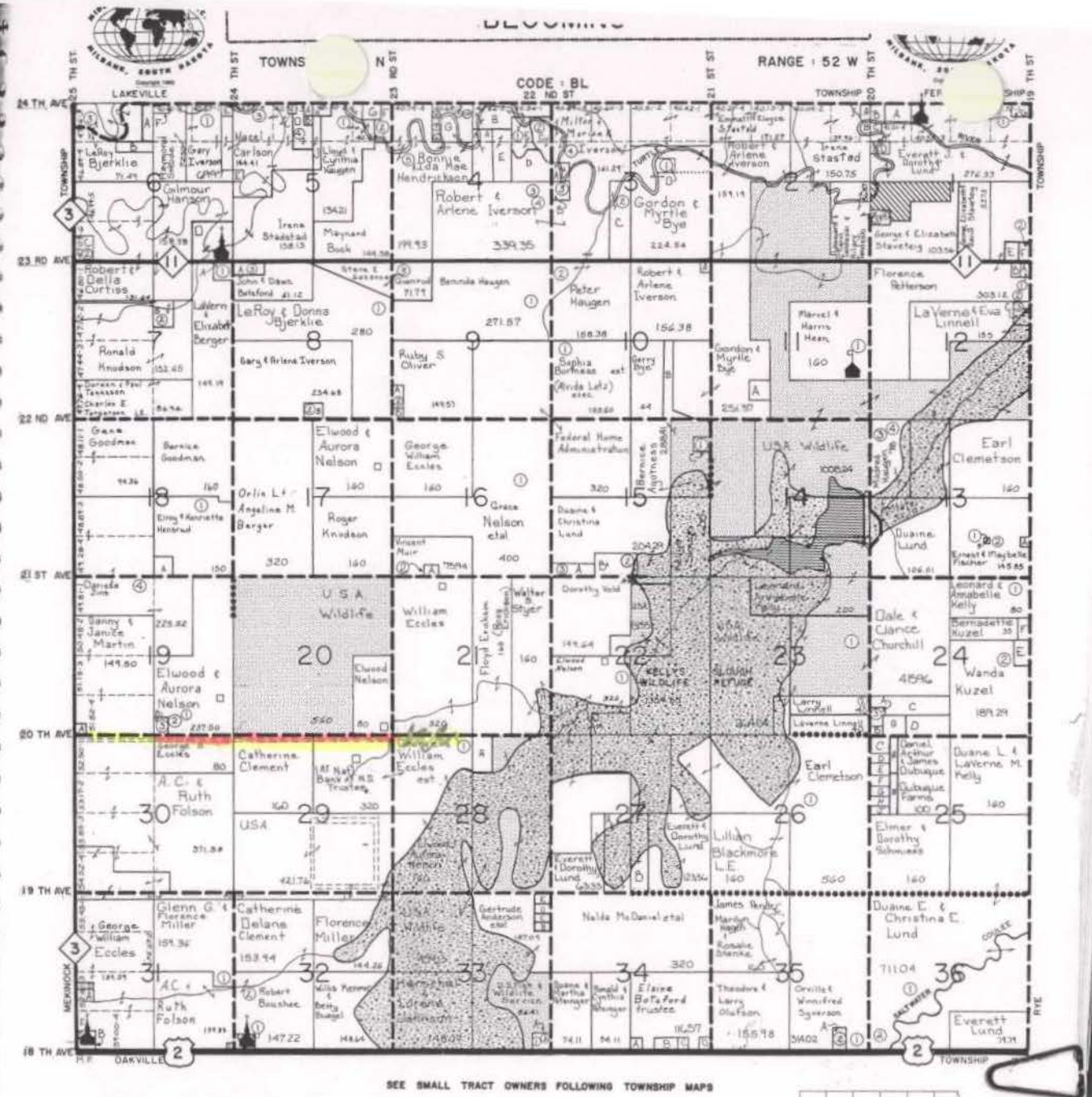
Gordon Caldis, Notary Public
Grand Forks County, North Dakota.
My Commission expires May 12, 1963

Revenue Stamps Affixed and Canceled
$7.15

Grand Forks County
Office of Register of Deeds
Filed for recording this 27th day of June, A.D. 1958, at 2 o'clock PM and recorded in Book 55, of Miscl on Page 25.

/S/ Louise Neate
REGISTER OF DEEDS

By _____ Deputy



AIR FORCE BASE PUBLIC NOTIFICATION
Grand Forks Air Force Base has proposed the replacement of culverts.
An environmental assessment has been conducted and a "finding of no significant impact has been determined for the action."
Anyone who would like to view the support documents to this action should contact the 319th Air Refueling Wing Public Affairs Office within the next 15 days at 747-5017.
(July 26, 2003)

AFFIDAVIT OF PUBLICATION

STATE OF NORTH DAKOTA }
COUNTY OF GRAND FORKS } SS.

I Byrne of said State and County being first duly sworn, on oath says:

That { she / he } is { a representative of the GRAND FORKS HERALD, INC.,

publisher of the Grand Forks Herald, Morning Edition, a daily newspaper of general circulation, printed and published in the City of Grand Forks, in said County and State, and has been during the time hereinafter mentioned, and that the advertisement of

Culverts

a printed copy of which is hereto annexed, was printed and published in every copy of the following issues of said newspaper, for a period of _____ time (s) to wit:

7-26	Yr. 03		Yr.
	Yr.		Yr.
	Yr.		Yr.
	Yr.		Yr.

and that the full amount of the fee for the publication of the annexed notice inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any person whomsoever and the amount of said fee is $ 7.59;

That said newspaper was, at the time of the aforesaid publication, the duly elected and qualified Official Newspaper within said County, and qualified in accordance with the law of the State of North Dakota to do legal printing in said County and State.

Publication Fee $ 7.59

Subscribed and sworn to before me this 6 day of Aug A.D. 03

ELAINE FAWCETT
NOTARY PUBLIC
STATE OF NORTH DAKOTA
My Commission Expires: Feb. 7, 2008

Elaine Fawcett
Notary Public, Grand Forks, ND

RSS#03-077
N Ditch Crossing

EIAP Checklist

Coordination	email 7/18/03	Date Received
ADS/SGGB (Bio)		7/21/03
ARW/JA (Legal)		7/18/03 below
ARW/SE (Safety)		7/18/03
CES/CECP (Community Planner)		7/18/03
CES/CEV (Env)	7/21	
CES/CEVA (Natural/Cultural)		7/18/03
CES/CEVC (Air Mgr)		7/18/03
CES/CEVC (Asbestos/LBP/tanks)		7/18/03
CES/CEVC (Water Mgr)		7/29/03
CES/CEVP (Haz Mat/Waste)		7/29/03
CES/CEVR (IRP)		7/18/03
OSS/OSA (Airfield Operations)		7/18/03
	CERR 7/22	8/5/03
Public Notice	15days	Expiration: 8/9/03
Coordination w/Public Affairs	22Jul	7/23
Base Leader		7/25
GF Herald		7/24

Route

Legal	8Aug03	8/14/03
CEV		
ARW/CV		

Coord Agencies 22Jul
NDDM 4Aug03
NDGame+Fish 13Aug03
SHPO

DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

22 July 2003

Mr. Dean Hildebrand, Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, ND 58501

RE: Environmental Assessments for Grand Forks Air Force Base, North Dakota.

Dear Mr. Hildebrand:

The U.S. Air Force is preparing environmental assessments (EA) on the following projects: Parking Lot Extension, Construct New Pavilion Playground, and Culvert Replacement. Attached are copies of the EAs. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,

WAYNE A. KOOP, R.E.M.
Environmental Management Flight Chief

Attachment: Environmental Assessments

North Dakota Game & Fish Dept.
100 N. Bismarck Expressway
Bismarck, ND 58501-5095

We have reviewed the project and foresee no identifiable conflict with wildlife or wildlife habitat based on the information provided.

(for) Michael G. McKenna
Chief, Conservation & Communications Division
Date: 8/13/03

NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section

Location:
1200 Missouri Avenue
Bismarck, ND 58504-5264

Fax #:
701-328-5200

Mailing Address:
P.O. Box 5520
Bismarck, ND 58506-5520

August 4, 2003

Ms. Heidi Durako
319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Re: EA for North Ditch Crossing Culvert Replacement
Grand Forks Air Force Base, Grand Forks County

Dear Ms. Durako:

This department has reviewed the information concerning the above-referenced project submitted under date of July 22, 2003, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

3. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablisment of vegetation or other permanent cover. Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, Chief
Environmental Health Section

LDG:cc
Attach.

NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section

Location:
1200 Missouri Avenue
Bismarck, ND 58504-5264

Fax #:
701-328-5200

Mailing Address:
P.O. Box 5520
Bismarck, ND 58506-5520

December 2000

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 319TH AIR REFUELING WING (AMC)
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

14 August 2003

MEMORANDUM FOR 319 CES/CEVA

FROM: 319 ARW/JA

SUBJECT: Legal Review – Reconstruction of Ditch Crossings/Culvert Replacement (EA/FONSI)

1. I reviewed the proposed Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) to reconstruct/repair ditch crossings in a site known as the North Ditch and located approximately 1 mile North of Grand Forks Air Force Base's main gate and Highway B3 and East, along the gravel road (approximately 1.2 miles) to crossing 1 and an additional half mile to crossing 2. The EA and FONSI appear to be legally sufficient.

2. Based upon my legal review, the EA meets the requirements of the National Environmental Policy Act (NEPA) of 1969, and 32 C.F.R. 989. NEPA requires environmental impacts be considered prior to final determination on a proposed project and preparation of an EA to be available to inform decision makers regarding the proposed project. The EA contains the need for the proposal, alternatives to the proposal, environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted for EA preparation. The proposed activity does not have a significant environmental impact.

3. The EA attached to the FONSI satisfies the level of analysis required to determine that there is minimal impact to the affected environment. The public notice requirement is satisfied because public notice was given via advertisements placed in the *The Leader* on 25 Jul 03 and the *Grand Forks Herald* newspaper on 26 Jul 03. No comments were received and none are anticipated.

4. If you have any questions about these comments, please contact me at 7-3606.

LYN T. PATYSKIWHITE, Capt, USAF
Chief, Legal Assistance and Preventive Law

I concur.

ERIK A. TROFF, Maj, USAF
Deputy Staff Judge Advocate

File 9B CEVA
RCS# 03-066
03-076
03-077

DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

22 July 2003

Mr. Terry Dwelle
State Health Officer
North Dakota Department of Health
600 East Boulevard Avenue
Bismarck, ND 58505-0200

RE: Environmental Assessments for Grand Forks Air Force Base, North Dakota.

Dear Mr. Dwelle:

The U.S. Air Force is preparing environmental assessments (EA) on the following projects: Parking Lot Extension, Construct New Pavilion Playground, and Culvert Replacement. Attached are copies of the EAs. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,

WAYNE A. KOOP, R.E.M.
Environmental Management Flight Chief

Attachment: Environmental Assessments

File 9B CEVA
NRD
RCS # 03-046
03-076
03-077

DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

22 July 2003

Mr. Dean Hildebrand, Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, ND 58501

RE: Environmental Assessments for Grand Forks Air Force Base, North Dakota.

Dear Mr. Hildebrand:

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Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,

WAYNE A. KOOP, R.E.M.
Environmental Management Flight Chief

Attachment: Environmental Assessments

File 9B CEVA HRD
RCS # 03-064
03-076
03-077

DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

22 July 2003

Mr. Merlen E. Paaverud
State Historic Preservation Officer
State Historical Society of North Dakota
612 East Boulevard Avenue
Bismarck ND 58505-0200

RE: Environmental Assessments for Grand Forks Air Force Base, North Dakota.

Dear Mr. Hildebrand:

The U.S. Air Force is preparing environmental assessments (EA) on the following projects: Parking Lot Extension, Construct New Pavilion Playground, and Culvert Replacement. Attached are copies of the EAs. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,

WAYNE A. KOOP, R.E.M.
Environmental Management Flight Chief

Attachment: Environmental Assessments